

Atty Dkt. No.: STAN-153  
USSN: 09/898,745

8. - 10. (Cancelled)

11. (Currently Amended) A method for identifying a target gene product of a bioactive compound, the method comprising the steps of:

contacting a yeast host cell with a bioactive compound, wherein the host cell is altered in expression of a target gene product; and

detecting a level of expression of a stress response gene by the host cell in response to said contacting, wherein the stress response gene is at least one of HSP26, HSP12, HSP42, HSP78, HSP82, YBR072W, YBL049W, YFL030W, YGR043C, YHR096C, YLR142W, YMR081C, YMR107W, YNL194C, YJL144W, YLR080W, YLR178C or YMR090W;

wherein a lower or undetectable level of expression of the stress response gene in the host cell relative to a level of expression in a wild-type host cell exposed to the bioactive compound indicates that the host cell is altered in expression for a target gene product that is involved in mediating resistance or sensitivity to the bioactive compound.

12. (Currently Amended) The method of claim 11, wherein the yeast host cell comprises a stress response gene reporter construct, wherein expression of the stress response gene reporter construct is indicative of expression of the stress response gene a stress response in the yeast host cell.

13. (Currently Amended) The method of claim 11, wherein at least two or more yeast host cells containing a heterozygous deletion strains are contacted with the bioactive compound drug, and wherein expression of a reporter gene construct in each yeast host cell provides for a unique detectable signal for detection of reporter stress response gene expression.

14. - 20 (Cancelled)

21 (Currently Amended) The method of claim 7, wherein the yeast host cells are contacted with the candidate bioactive compound drug in a single culture.

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22. (Currently Amended) The method of claim 13, wherein the yeast host cells are contacted with the bioactive compound candidate drug in a single culture.